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ABSTRACT

This paper discusses the central problems and issues of the transition from school to worklife in the United States. Developed from a framework which outlines the structure of the education system and the place of vocational-technical education within it, the paper addresses measures the United States has taken to facilitate the transition from school to work. Content and methods related to curriculum and teaching in vocational education are briefly described and conclusions are drawn on the present state of affairs relative to the school-to-work transition. Selected conclusions are these: (1) access to facilities in urban and rural areas must be improved; (2) more emphasis should be placed on staff development; (3) guidance services and counseling efforts should be better integrated into the school system and the curriculum; and (4) better and more reliable information on job possibilities, work experience, and employment options are necessary. It is noted that resolutions to the school-to-work transition are most likely to be found where cooperative work experience programs can serve at least fifty percent of all students enrolled in school-based vocational programs; where career exploration in the workplace is available to all students; and where education is more successfully integrated with business and the community by programs being delivered on the work site rather than exclusively in the classroom. (MEK)

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THE AMERICAN EXPERIENCE IN THE TRANSITION FROM VOCATIONAL SCHOOLS TO WORK

A REPORT
TO THE
UNITED NATIONS EDUCATIONAL, SCIENTIFIC, AND CULTURAL ORGANIZATION

International Symposium
On Problems of Transition from
Technical and Vocational Schools to Work
Berlin, German Democratic, Republic
14-18 April, 1980

By
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Research for this paper was done by Deborah Gunn, Special Assistant to the Deputy Commissioner for Occupational and Adult Education, United States Office of Education, Washington, D.C.

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The American Experience in the Transition from Vocational Schools to Work

I. Introduction

This paper discusses the central problems and issues of the transition from school to worklife in the United States.

The discussion is developed from a frame work which outlines the structure of the education system in the United States and the place of the vocational-technical education delivery system within that larger structure. Further, the paper addresses measures the United States has taken to facilitate the transition from school to work; briefly describes content and methods related to curriculum and teaching in vocational education and draws conclusions related to the present state of affairs in the critical area of transition from schools to work.

II. Structure of the United States Education System and the Vocational-Technical Delivery System

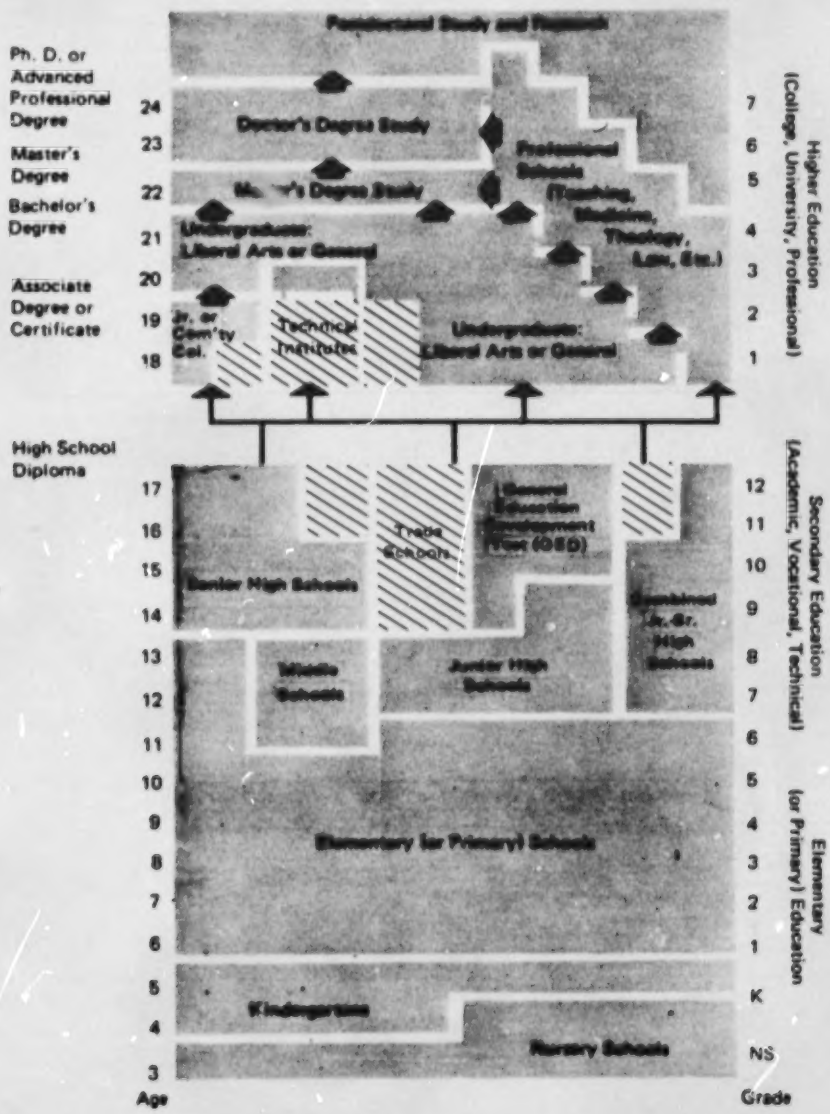
A. United States Education System

All powers not expressly delegated to the federal government by the Constitution of the United States are reserved for the States. Education, one of those unspecified powers, is the responsibility of the several States. It remains, however, a function of the local community and the concern of the federal government.[1]

Contrary to the experience of many other member states, education in the United States is a highly decentralized function. The education system still displays the historic division into basic elementary, secondary, and postsecondary education (see figure 1). While the grouping of grades one through twelve varies with local administrative units, the provision of twelve years of schooling, with a high school diploma marking their successful completion, is a uniform characteristic of the education system. [2]

The American postsecondary education system has grown increasingly complex and diverse, reflecting the growth of American society. As jobs have required greater amounts of complex information, and as consumer options have required increased knowledge, society and the individuals within it have needed to extend and expand formal education beyond the compulsary school age. To meet this demand, postsecondary education has evolved into a multifacted enterprise. Adult Education courses in high schools and community/junior colleges offer students a means of continuing their learning experience. From small private liberal arts colleges to large public universities, higher education offers a wide range of courses, programs, and degree options. Vocational schools allow students to explore career opportunities and train for highly skilled jobs. Teacher education in the United States is offered exclusively on the higher education level. Candidates for teacher education programs must have completed secondary school and earned admission to a college or university.

Figure 1.--The structure of education in the United States [4]



NOTE.--Adult education programs, while not separately delineated above, may provide instruction at the elementary, secondary, or higher education level.

Vocational & Technical Education

B. Vocational and Technical Education System

In response to the needs of students and the labor market, occupational education has become an integral part of the education system. This integration of occupational education with other more traditional segments of the system has developed with the aid of Federal financial and leadership support. Federal involvement began in 1862 with the Morrill Act, also known as the Land Grant Colleges Act. This legislation introduced two new concepts combining liberal arts and practical studies in one setting for the same group of students and involving the Federal government in the development of public education.[5]

Education and training are carried out by a variety of education and training systems, public and private. The magnitude of the effort is immense and includes training:

o At the secondary level:

Institutional Type	Definition
Comprehensive High School	A comprehsneive high school is a general high school offering programs in both vocational and general academic subjects, but in which the majority of the students are not enrolled in programs of vocational education.
Vocational High School	A vocational high school is a specialized secondary school that offers a full-time program of study in both academic and vocational subjects and in which all or a majority of the students are enrolled in vocational education programs.
Area Vocational Center	An area vocational center is a shared-time facility that provides instruction in vocational education only to students from throughout a school system or region. Students attending an area vocational center receive the academic portion of their education program in comprehensive high schools and other institutions.

o At the postsecondary level:

Community/Junior College	A community/junior college is a two-year postsecondary degree or certificate granting institution offering a comprehensive program of instruction in both general and vocational-technical education and offering a transfer program to higher education institutions.
Technical Institute	A technical institution is a two-year postsecondary degree or certificate granting institution offering instruction primarily in vocational and technical education and whose educational programs are primarily directed toward immediate job placement -- although provisions may exist for the transfer of credit to institutions of higher education.

Area Vocational School	An area vocational school is a postsecondary non-degree granting institution (or an institution offering a degree that is not recognized as a collegiate degree by the appropriate regional accrediting commission) offering instruction in vocational and technical education only, and whose educationa programs are terminal in nature. Such in- institutions generally have no provisions for the development of transfer programs to either two-year institutions or to four-year in- institutions or to four-year institutions of higher education. Most do provide a completio certification, which often indicates level of skill competence.
Colleges and Universities	Colleges and universities are four year higher education degree granting institutions but many offer two year programs in certain vocational-technical education fields. [6]

Private institutions outnumber public institutions in the United States by almost four to one. Public and proprietary school schools depend on the marketplace for their income; public schools depend on the political process for theirs. [7]

The school-based vocational education system is only one part of a much larger national network of occupational education and training programs and institutions. Other federally funded programs include employment training programs of the Department of Labor, military training, and training by government agencies and department. The Comprehensive Employment and Training Act (CETA), and the Work Incentive Program (WIN) of the Department of Labor; Social and Rehabilitation Services programs of the Department of Health, Education and Welfare; plus massive private-sector training provided by private firms and labor unions (apprenticeship training); when added together provide a nation-wide training system accessible to most citizens of the United States.

C. Organizational Structures

1) Policy Making and Planning

From the outset, the federal involvement in education has been an intervention to upgrade the citizens of the nation in response to economic and technical change. From this involvement, public policy relating to education and working life has been debated, established and changed. [8]

At the Federal level policy making and planning for technical and vocational education is currently housed within a Bureau of Occupational and Adult Education in the United States Office of Education. The U.S. Office of Education is one of several functions of the current Department of Health, Education, and Welfare. (see figure 2)

At this time, however, a transition process is taking place which under Federal law creates a new Department of Education at the Cabinet level, headed by a Secretary of Education. The Secretary, thus will rank at the level of but will have different functions from a Minister Education in other countries.

Under the new United States Department of Education, Federal policy making and planning for technical and vocational education will come under the aegis of the Secretary of Education and an Assistant Secretary for Vocational and Adult Education.

Within this structure an organizational configuration for various program development, and compliance functions will be created. (see figure 3). This structure for vocational education will not be considerably different from the present structure shown in figure 2.

Federal policy takes the form of Federal law. For vocational education original Federal legislation was passed in 1917 under the Smith-Hughes Act. More comprehensive legislation was passed by the United States Congress in 1963, 1968, 1972 and 1976, the most recent iteration. These laws set the overall government policy for the use of federal funds (tax dollars) for promoting access to and improvement of vocational education programs nationwide.

Policy making also takes place at the state level. According to Federal law each state must designate a sole state agency for vocational education. This agency is most often the State Board for Public Elementary and Secondary education. However in nine states the state legislature or Governor has chosen to create a separate state board for vocational education, which is separate from the board of common school education.

Policy may be made at the state level which regulates program development, improvement and evaluation at local levels. In turn certain administrative policies are made at the local school district and community or junior college level.

In order to receive federal funds, each local education agency develops a comprehensive plan for vocational education which is sent to the state. The state education agency, in turn develops a state plan for vocational education which is submitted to the federal office for approval. These plans take into account federal and state legislation and local, state and federal priorities. Advisory councils on the federal, state and local levels, represent the various constituencies, business, industry, labor and others; provide input for the development of the plans for vocational education; and provide overall evaluation of program effectiveness at each level (see figure 4).

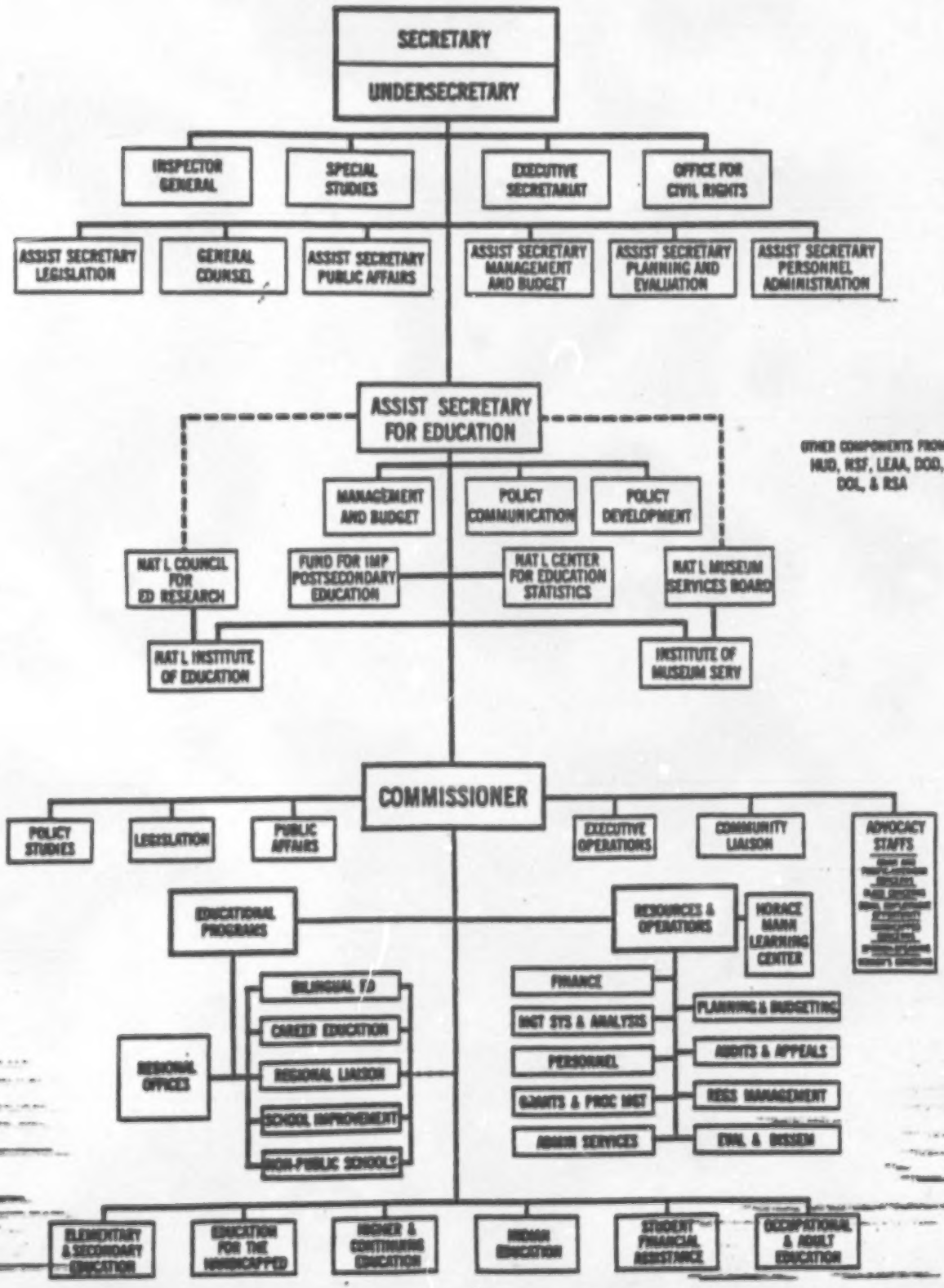
2) Research, Curriculum and Data Collection

Vocational educators have traditionally looked to the Federal government for assistance in the areas of program innovation and improvement. At the federal and state levels there is a research and development function.

The Education Amendments of 1976 established a comprehensive strategy for program improvement in vocational education. This strategy coordinates the federally managed Programs of National Significance and the program improvement portion (approximately 20%) of the basic federal grants to states for promoting program quality within each state.

At the federal level funds for "Programs of National Significance" are provided under the authority of the Education Amendments of 1976. The funds appropriated are competitively administered. The following types of activities are supported:

STRUCTURE OF EDUCATION WITHIN HEW



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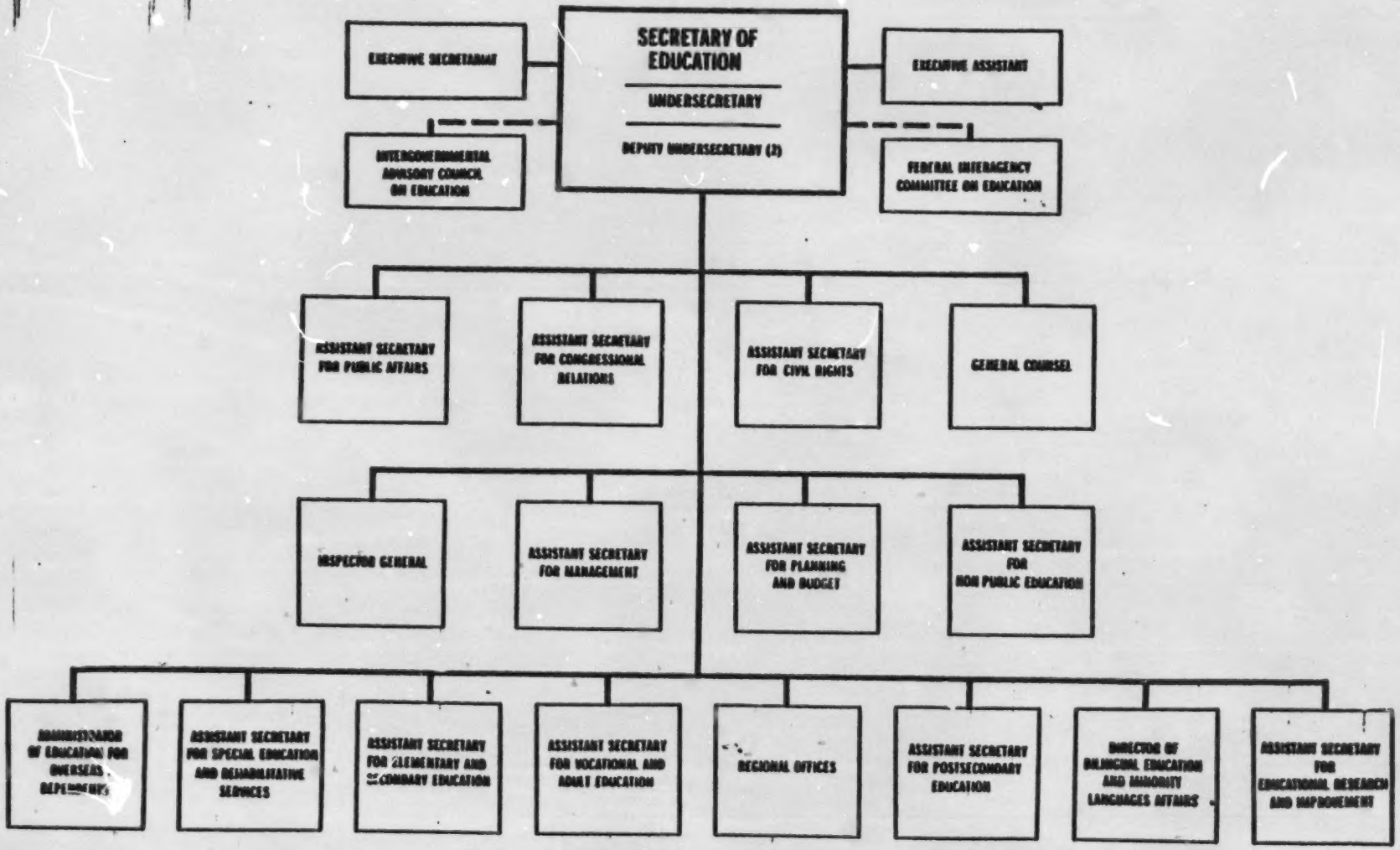

SECRETARY OF EDUCATION
UNDERSECRETARY
DEPUTY UNDERSECRETARY (2)
EXECUTIVE SECRETARIAT
EXECUTIVE ASSISTANT
INTERGOVERNMENTAL ADVISORY COUNCIL ON EDUCATION
FEDERAL INTERAGENCY COMMITTEE ON EDUCATION
ASSISTANT SECRETARY FOR PUBLIC AFFAIRS
ASSISTANT SECRETARY FOR CONGRESSIONAL RELATIONS
ASSISTANT SECRETARY FOR CIVIL RIGHTS
GENERAL COUNSEL
INSPECTOR GENERAL
ASSISTANT SECRETARY FOR MANAGEMENT
ASSISTANT SECRETARY FOR PLANNING AND BUDGET
ASSISTANT SECRETARY FOR HIGH PUBLIC EDUCATION
ADMINISTRATOR OF EDUCATION FOR OVERSEAS DEPENDENTS
ASSISTANT SECRETARY FOR SPECIAL EDUCATION AND REHABILITATIVE SERVICES
ASSISTANT SECRETARY FOR ELEMENTARY AND SECONDARY EDUCATION
ASSISTANT SECRETARY FOR VOCATIONAL AND ADULT EDUCATION
REGIONAL OFFICES
ASSISTANT SECRETARY FOR POSTSECONDARY EDUCATION
DIRECTOR OF BILINGUAL EDUCATION AND MINORITY LANGUAGES AFFAIRS
ASSISTANT SECRETARY FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

-7-

a) A National Center for Research in Vocational Education. This center was established to a) conduct applied research and development activities; b) provide leadership development activities for state and local leaders in vocational education, c) disseminate the results of vocational education research and development; d) maintain a clearinghouse on research and development projects supported by the states and the U.S. Office of Education; e) generate national planning and policy development information, and f) provide technical methods for evaluation of vocational education programs.[10]

b) Curriculum development, revision and dissemination. Six regionally located Curriculum Coordinating Centers (responsibility for determining and developing curriculum lies with state and local education authorities) are supported to assist 57 states and territories in diffusing instructional materials and in preventing duplication in the development of curriculum. A major function of each center is to provide leadership in curriculum information resources. While center services vary according to regional needs, common functions include: evaluation of curriculum needs, coordination of curriculum development activities, field testing and evaluation; collection and dissemination of information on new and developing materials; [10] response to requests for materials and information; curriculum in-service training; and provisions for technical assistance. [12] While responsibility for determining and developing curriculum lies with state and local education authorities, the curriculum centers are available to assist these activities.

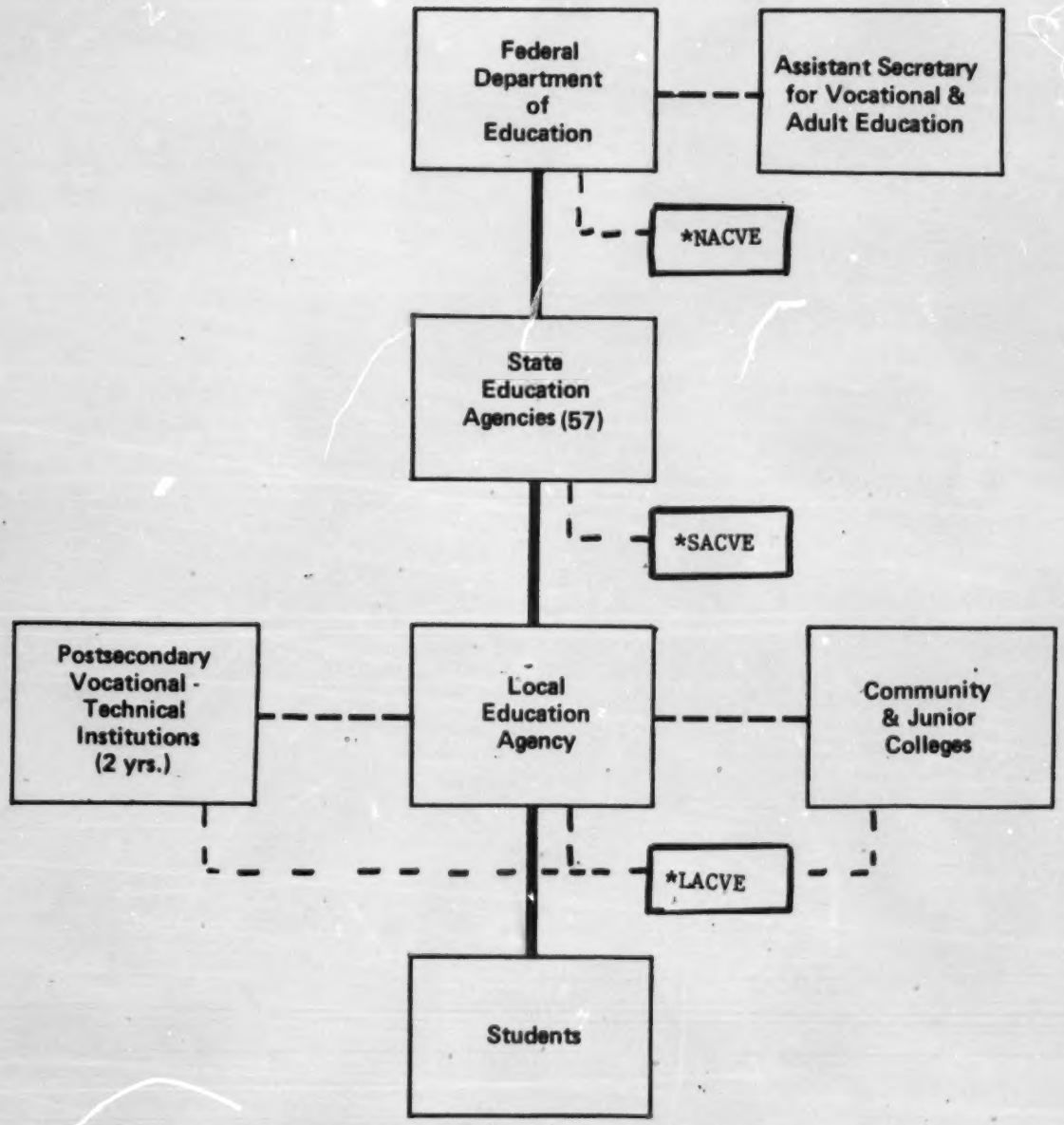
c) Research and Demonostration Projects. These projects include applied studies, experimental, developmental and pilot programs in vocational education.

d) Exemplary and innovative programs. The major purposes of these projects are a) to develop and disseminate materials for new and changing occupational areas and b) to produce information for decision and policy making purposes at the state and vocational levels concerning national problems in vocational education.

e) Vocational education personnel development. The primary function is funding of fellowships to individuals and grants to approved institutions of Higher Education (universities) for training teachers, counselors, administrators, researchers, and other vocational education professionals.[13]

f) A National Occupational Information Coordinating Committee and fifty-seven State Occupational Information Coordinating Committees. The Education Amendments of 1976 directed the creation of a national system of occupational information which is designed to a) improve state planning by using occupational supply-demand information and b) provide up-to-date information for students to use in career decision-making. [14]

Figure 1.-Organizational structure of vocational-technical education in the United States



*NACVE--National Advisory Council on Vocational Education
SACVE--State Advisory Council on Vocational Education
LACVE--Local Advisory Council on Vocational Education

Each state is required to spend 20 percent of its federal funds on research, teacher education, curriculum development and guidance and counseling efforts and to disseminate information and provide technical assistance to local school districts.

The State program improvement system is basically managed by State Vocational Research Coordinating Units (RCU's). Each state prepares a comprehensive plan based on employment opportunities, emerging and changing occupational requirements, and population characteristics to determine allocations of resources for research studies, curriculum revision and development, professional personnel development, and innovative programs. The state improvement activities are expected to build upon the Federal activities, bringing reform and improvement to vocational education.[15]

Data on vocational education enrollments is collected through the Federally mandated Vocational Education Data System (VEDS). This system provides information on students (including data on race, sex and handicapping conditions), program completers and leavers, staff, facilities, and expenditures.

3) Coordination of Education, Labor and Employment Programs

The education and training system in the United States as a whole has two primary sets of functions with respect to the labor market: (1) to improve economic efficiency, adaption to structural change and growth by meeting the nation's work skill requirements; and (2) to enhance the employability, earning capacity, career progress, and job satisfaction of individual workers. Federally funded education and training programs also have a special commitment to reducing social and economic inequality by raising the earning capacities of unemployed or underemployed workers who are poor, handicapped, academically or economically disadvantaged or who suffer discrimination because of their sex.

Vocational education has played a key role in employment and training programs administered by the U.S. Department of Labor since their inception in the early 1960's. Under the Area Redevelopment Act and the Manpower Development and Training Act, vocational education participated in the administration of classroom training programs at the State level and in the delivery of skill training to disadvantaged students at the local level. With the advent of the Comprehensive Employment and Training Act (CETA), responsibility for the management of employment and training programs shifted from Federal to State and local units of government known as prime sponsors. State vocational education agencies retained a role in the administration of five percent set-aside funds for vocational training for out-of-school youth and adults through agreements with prime sponsors.[16]

With the passage of the Youth Employment and Demonstration Projects Act (YEDPA) of 1977, linkages between employment and training programs and local education agencies were chosen as a fundamental approach to the growing problem of youth unemployment. A major part of the YEDPA thrust was the allocation of a minimum of twenty-two percent of the Youth Employment and Training Program (YETP) funds to be administered under a joint prime sponsor-local education agency agreement. While vocational education is a potential recipient of these funds, it is not singled out for special consideration. When CETA was amended, however, the potential for coordination with vocational education was expanded. Set-asides for vocational education were increased and, as an added incentive for coordination, additional

funds were made available to Governors for encouraging the establishment of linkages between prime sponsors and local education agencies.[17]

Coordination at the federal level has been accomplished through a joint agreement between the Department of Labor and the Department of Health, Education and Welfare to facilitate cooperation between labor and education and sponsor a number of joint ventures including technical assistance, research and demonstration activities. Through policy directives, legislation, research and development activities and through education and training programs the "connection" between education and training takes form at the local level.[18]

The National and State Occupational Coordinating network, (previously mentioned) when fully operational will have a direct effect on the positive education-labor tie. This activity represents a major coordinating effort with the Department of Labor and the Department of Education, which jointly fund the programs.[19]

D. Guidance and Counseling System

The formal counseling and guidance system in the United States is one of many influences in the transition from school to work. Selection of a vocation is an individual choice. Although there is no formal educational policy on how vocational choices are to be made, current practices in education reflect the philosophy that vocational planning and decision making are individual and personal responsibilities. Counciling and guidance is, to a large extent, an option system to be used at the individuals discretion.[20]

Within the past decade, the federal government has initiated a major education and work movement known as career education. The purpose of this movement is to provide occupational guidance, career information, and awareness to individuals of all ages throughout the nation.[21]

III. Organizational Measures and Related Actions Currently Used to Facilitate the School to Work Transition.

A. Labor Market and Career Information Systems

Realizing the vital need for a national occupational information system, the United States Congress in 1976 created the (aforementioned) National Occupational Information Coordinating Committee (NOICC) and a system of State Occupational Information Coordinating Committees (SOICCs) to fulfill this task. NOICC is not a primary data collection agency, but is creating a structure for the inclusion of occupational supply and demand data.[22]

Identifying occupational options for post-high school education and vocational training grows more and more complex. In part, this is the due to obsolesence resulting from technological progress and innovation, and to the constantly changing mosaic of occupational possibilities in any particular urban complex or rural area.

Through NOICC and SOICC a beginning has been made in identifying these occupational options, however, the point has not yet been reached where this information is complete it will be used in determining occupational options in secondary and postsecondary institutions and for individual career guidance. [23]

In essence the Occupational Information System enbodies all planning elements related to job training and job and labor market projections so that individual States may plan for their specific needs within the framework of a nationally-aggregable data collection and information system.

One of the most important elements in the transition from school to work is a career guidance information system. Career information systems have been undergoing development with support from the U.S. Office of Education, The National Institute of Education, and U.S. Department of Labor. There are, basically, two types of career information systems. One type, developed by the Department of Labor, consists of a computerized listing of major employment opportunities within a particular State or local area. These systems are currently operating in eleven States. Another type of career information system is the Appalachia Educational Laboratory (AEL) model. This model does not provide actual job information data but rather provides an organizational structure for the inclusion of career information resources. The AEL system is comprehensive, and able to encompass within its structure all of the approximately 13,000 distinct occupations in the United States identified by the Department of Labor. The two types of career information systems are complementary rather than competitive. [24]

B. Coordinating Mechanisms

There are several coordinating mechanisms between technical and vocational institutions and industry in the United States.

Broad community involvement in vocational education is assured through required national, state and local advisory councils composed of lay persons, business, industry, and labor representatives, and educators. Over 100,000 American citizens participate in such councils. [25]

In addition, the U.S. Office of Education currently is supporting efforts to promote and strengthen Industry-Education-Labor (I-E-L) councils and activities in local, State and regional areas and to provide information and data feedback on the effectiveness of these councils. The goal of these efforts is to: (1) establish more effective I-E-L mechanisms to serve as local catalysts in improving communication and collaboration between the educational establishment and employers, and (2) insure a more effective approach to the utilization of human potential through better planning. Such efforts are clearly increasing viability and support for industry-education-labor cooperation in revising curricula and counseling programs to include input from business and labor segments of society. Joint efforts of this sort are already breaking down some of the barriers that exist between schools and the world of commerce and industry. [26]

C. Work-Study Arrangements

Essential to vocational education is the provision of actual work-site experience and, where this is not possible, simulating the work-site as closely as possible.

Cooperative education is an instructional strategy and may be defined as the integration of classroom theory with practical experience under which students have periods of attendance at school and periods of employment. Where possible the students work is related as closely as possible to his/her area of study and individual interest in the field. The employment is considered to be a regular, continuing, and essential element in the educational process. The learning experience increases in difficulty and responsibility as the student progresses through the curriculum. [27]

Apprenticeship programs combine experience and training on the job with related and theoretical instruction. The experience and training of a machinist apprentice, for example, is usually supplemented by instruction in trade theory, blueprint reading, mechnical drawing, safe working practices, trade mathematics, physics, and other subjects related to the job. Related instruction is usually given in local trade or vocational schools or other educational instructions. [28]

Vocational education also offers work-study programs. This work experience is not necessarily related to the students' field of study but is a form of student financial aid to help the student remain in school.

Holding promise for the future is a recent innovation Experience-Based Career Education (EBCE). EBCE is a concept initiated by the National Institute of Education and developed by four regional educational research laboratories. It is a comprehensive community-based educational program through which participants earn academic credit for basic skills and life skill competencies in a community setting. The EBCE experience features academically focused nonpaid short- and long-term exploration. Students fulfill graduation requirements in English, Science, and math as they interact with adult worker/mentors at job sites such as newspaper offices, laboratories, and computer firms. [29]

D. Placement of Vocational School Facilities

Construction of Area Vocational School Facilities is authorized by the 1976 Vocational Education Amendments as part of the basic grant allocated to each State. Since Federal funds were first authorized for construction of Area Vocational School Facilities in the Vocational Education Act of 1963, the number of designated area vocational schools has increased from 405 in 1965 to 2,452 in 1975. The number of construction projects per year ranged from a low of 124 in 1965 to 400 in 1971. In the 6-year period from 1972-78, a total of over $1.6 billion was committed for area vocational school construction of which approximately 23 percent was Federal funds. [30]

Access to vocational education programs in major urban centers (500,000 population or more) and in isolated rural communities (population under 2500 approximately) remains a serious problem due to lack of adequate physical facilities. Because the Federal attitude is that construction, remodeling and renovation is primarily a local and state responsibility, few states have chosen to use Federal funds (which they may use, at their discretion) for these purposes. Recent initiatives in some states to limit taxation on real and personal property have resulted in a decreased capacity for providing the necessary fiscal support for development of instructional space.

The location of institutions having facilities for five or more different vocational education programs does not reflect the distribution of the population. This disparity is reflected in data from a "National Study of Vocational Education Systems Facilities" (Westat study) presented in Table I and II. This data indicates that institution/population and station/population ratios are significantly higher for medium cities, small towns and rural communities than for the central cities and suburbs of major ubran areas. This suggests that the needs of cities and suburbs of major urban areas are not being met; the needs of medium cities, small towns and rural areas are overmet; or both. [32]

Data compiled on facility utilization have been inconclusive. Data secured in this study have been analyzed in a variety of ways, based on several sets of "rules" related to program operating patterns. However, none of the "rules" tested on the available data could be broadly verified by other data sources. The only conslusion which can be drawn from these findings is that there is great diversity in the operating characteristics of different institutions in different States. Further analysis of the available institutional data, using additional information (not currently available) regarding institutional operating practices, is required to fully assess the utilization of vocational education facilities. [33]

E. Follow-up System After Graduation

Vocational education completers (first year follow-up) have a significant job track record. Over 91% of the individuals completing vocational training, and available for employment, found jobs. Sixty-four percent of these persons found jobs directly related to their training (see figure 5). Less than half of the completers of general curricula (not including skills training) found and retained jobs the first year after exiting the public education system. [34]

In a recent publication, "Vocational Education and Training; Impact on Youth, " John Grasso and John Shea suggest that job placement in the United States is accidental at best. Many youth seem to use a variety of means to seek out a job. Those enrolled in vocational education programs in public schools are often assisted in locating employment by their instructor who, for the most part, comes from industry and through her/his ties with employers is able to help place students. A number of youngsters, both in and out of vocational programs, also register with Local Employment Service arm of the United States Employment and Training Administration, write letters to prospective employers, respond to the want adds in local news papers, or utilize the contacts they make through family and friends in job finding. [35]

Table 1
Distribution of Institutions and Instructional Stations in Secondary Schools vs. Population 31

Population Region Type	Institutions		Stations[1]	Population
	Number	Percent	Percent	Percent
A. Central City, Metropolitan Population over 500,000	103	9.3	13.3	22.8
B. Suburb, Metropolitan Population over 500,000	110	10.0	10.5	38.0
C. Central City, Metropolitan Population 100-500,000	102	9.3	17.1	[illegible]
D. Suburb, Metropolitan Population 100-500,000	33	3.1	2.9	3.6
E. City or Town Population 25-100,000	197	17.8	15.5	3.1
F. Town or Region Population 0-25,000	115	10.5	6.7	23.6
G. Service Area not Elsewhere Classified	440	40.0	34.0	NA
Total[2]	1,100	100.0	100.0	100.0

[1] Instructional stations.

[2] Institutional totals (6,660) do not equal total survey responses (6,693) because some institutions did not respond to the classifying question used in the generation of this table.

Table 11
Distribution of Institutions and Instructional Stations in Postsecondary Schools vs. Population

Population Region Type	Institutions		Stations[1]	Population
	Number	Percent	Percent	Percent
A. Central City, Metropolitan Population over 500,000	453	8.1	10.6	22.8
B. Suburb, Metropolitan Population over 500,000	597	10.7	13.5	38.0
C. Central City, Metropolitan Population 100-500,000	368	6.6	8.2	8.9
D. Suburb, Metropolitan Population 100-500,000	277	5.0	6.1	3.6
E. City or Town Population 25-100,000	958	17.3	21.4	3.1
F. Town or Region Population 0-25,000	2,402	43.2	34.5	23.6
G. Service Area not Elsewhere Classified	505	9.1	5.7	NA
Total[2]	5,560	100.0	100.0	100.0

[1] Instructional stations.

[2] Institutional totals (6,660) do not equal total survey responses (6,693) because some institutions did not respond to the classifying question used in the generation of this table.

No hard data are available on how many youth or adults use any single method of finding employment, but the recent report of the National Commission on Unemployment and Employment Statistics suggests that out of twelve students, perhaps two find employment through public employment service, four through the school (either an instructor or the school counselors), and six through other means, principally family and friends. [36]

Empirical evidence suggests that more and more school counseling programs are including job placement as a major function. As career implications of the entire curriculum are interwoven into the instructional program, schools are extending their job placement energies to demonstrate their greater role in the transition between school studies and the labor market. Such activities also demonstrate the practical value of studies often pursued in the past for their own sake. [37]

IV. Vocational Guidance, Curriculum, Research and Training - Present Practice, Problems and Changes

A. Vocational Guidance

While vocational guidance included in training programs is fairly widespread, quality is too often spotty and programs are not always available to those who require counseling.

One of the concerns for the current guidance system is the unfeasibility of the role of the guidance or vocational counselor as currently structured in most schools and school systems. The counselor's rile is often ambiguous and not well integrated into the educational programs.

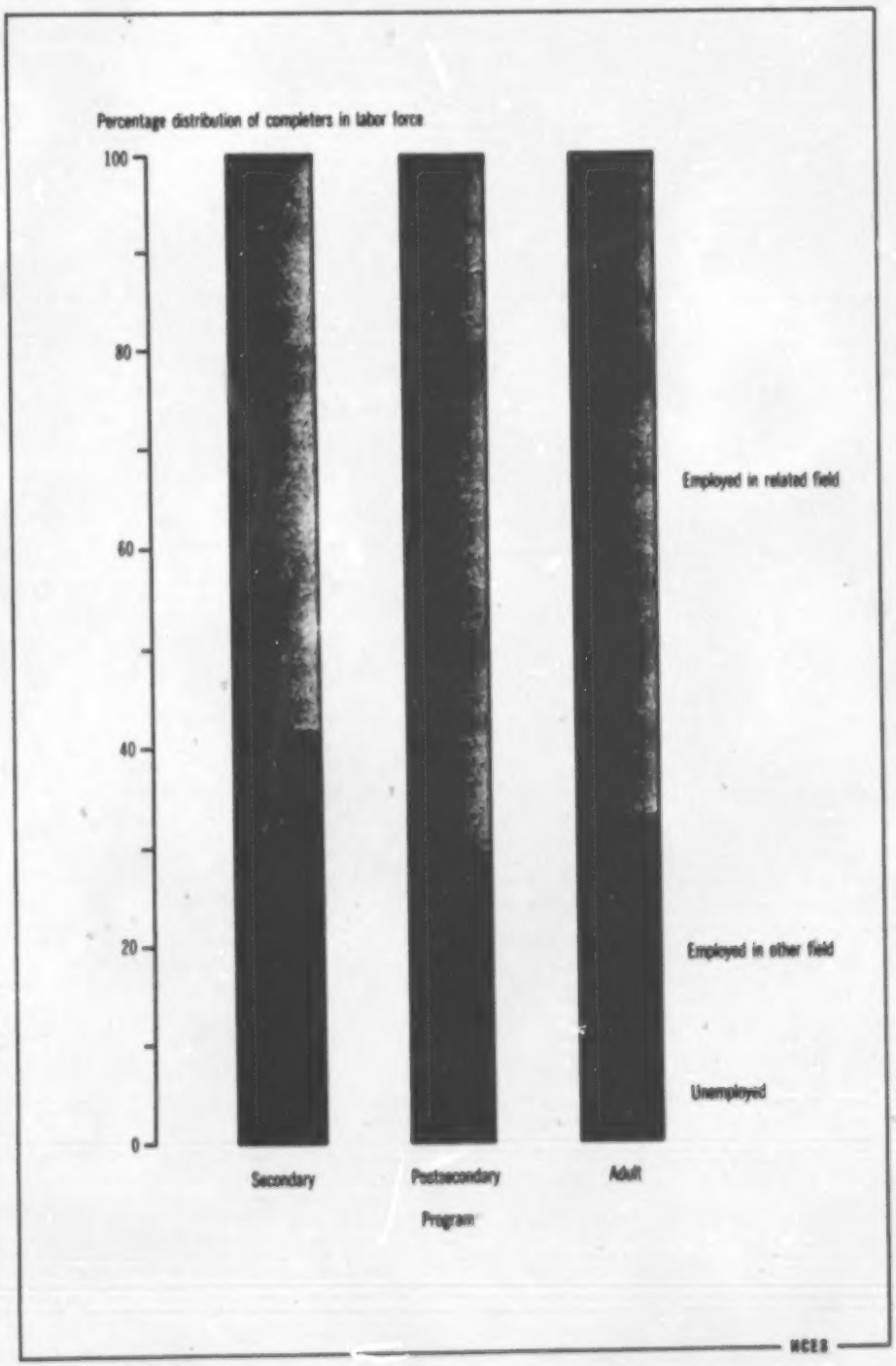
Furthermore, the counselor to student ratio in most schools is 450 or more to 1; no one individual could responsibly handle the average "caseload" given to guidance staff in the typical large school. [40]

Greater involvement of buisness, industry, and labor is needed in counseling programs. Business, industry and labor must be shown the advantages that more confident and skillful potential employees can return on the investment of their time in the schooling process. Counselors and school officials must, in turn, accept that the experts on business and industry and its needs are businessmen; the experts on labor and its needs are labor officials. [41]

Guidance and counseling will continually be accused of "irrelevance" unless linked with the eyes, ears and voice of the communities where students are likely to seek further education or employment It should not be the responsibility of guidance <u>alone</u> to create these kinds of linkages. The curriculum in any subject area, be it music, art, literature, mathematics, or physical education, includes references to facts and knowledge. Students are not only better motivated but more likely to learn when facts and knowledge relate to their everyday lives and to the lives they hope to live in the future. The integration of the curriculum with career guidance implications has been one way of expanding a students' ability to learn more about self, the subject matter under consideration, and the relationship of academic knowledge to future goals and plans. Counseling and guidance personnel have been instrumental in assuring that career development is facilitated through the curriculum. [42]

Figure 5
Labor Force Participation Following Completion of Vocational Education Programs [38]

Of the persons who completed vocational education programs and were available for employment, 64 percent found jobs related to their training. Another 25 percent found jobs unrelated to their training and 10 percent were unemployed 3 months after completing the programs.



B. Curriculum

One of the most significant reform issues in vocational education is found in curriculum change. Here there is a major shift to education based on demonstrated competence in both basic skills and job skills.

A Vocational Technical Education Consortium of States (VTECS) was formed when sixteen states and two branches of the armde services (U.S. Navy and U.S. Air Force), joined together. This consortium developed a rigorous system of determining tasks performed by worker category, time spent on tasks, and difficulty of task. These were converted to performance objectives with criterion-referenced measures (worker response).

Each consortium member produces Performance Catalogs every 450 days based on two job titled listed in the Dictionary of Occupational Titles issued by the United States Department of Labor. The states use these catalogs as a basis for curriculum for various occupational areas with a greater focus on the development of instructional (classroom, laboratory) materials than is the case with the VTECS enterprise.

In the United States, the instructional content of the specific vocational and technical training can be organized in modules, as well as the instructional content of the common educational experience. By organizing the specific vocational and technical instruction in modules, students can leave the compulsory level having mastered as a high level of vocational and technical skill as they were able and can, then, secure additional modules after initial employment as their retraining or upgrading needs require. [43]

C. Research

Some research activities which are oriented toward making graduates of vocational and technical schools more employable and easing the school to work transition include the following:

1) Development of Entrepreneurship Training components for vocational education.

Currently there is a lack of materials and training designed to acquaint students with the advantages and disadvantages of becoming an entrepreneur as well as with problem-solving strategies necessary for successful business ownership. The entrepreneurship components include: a) classroom-base learning activities as well as interaction with successful entrepreneurs, b) application in group or self-instructional settings c) competency tests of students outcomes and abilities. [44]

2) Industry-Education-Labor collaboration.

Meaningful collaboration among industry, business, labor and education requires a system for linking interests and energies of these institutions to issues important for all. Collaboration councils, (the aforementioned IEL councils) designed for this purpose, are formed as "neutral ground" where community needs, resources,and strategies can be discussed and acted upon in positive ways by community and state leaders.

With the education-to-work and work-to-education transitions of young people and adults as their principal focus, councils find that central questions about education and skill development are linked to other major issues. These include: occupational information, career guidance and counseling, career development for individuals and groups, community economic development and job creation, and concern for the ways all sectors can work together to develop more rewarding learning and work opportunities for all citizens.[45]

3) Basic skills Development through vocational education. There is an assessment of need underway for basic skills in vocational education by occupational areas (eighth grade level in reading and mathmatics, listening, speaking and writing). Specialized vocabularies and basic skill requirements needed for job performance are incorporated into the vocational instruction. This is especially helpful in the training of handicapped and disadvantaged populations.

4) Volunteers to improve vocational education in urban areas. The goals of this project are to identify and publicize ways to enhance urban vocational education with the expertise of volunteers utilized by administrators, supervisors and instructors.[46]

5) Credentialing women's life experiences. The two main goals for this project are 1) development of a system by which women's life experiences are assessed and accredited for entry into employment or for entry into vocational education programs, and 2) arranging for administration of a system for assessing and accrediting women's life experiences. Potential users include employers, vocational education administrators, counselors, and organizations such as women's groups, labor organizations and civic organizations.[47]

6) The Bilingual vocational oral proficiency test. This test, of English speaking and listening skills, is designed to: 1) be administered individually by the teacher, 2) be an oral test; there will be no reading or writing, 3) be criterion-referenced, 4) be used with all language groups, 5) assess acquisition of English skills necessary in work environment, and 6) be a package of two parallel test forms with an accompanying administrative manual. It will give teachers a quick, objective way of: determining who is eligible to participate in bilingual vocational training programs; finding out how much English applicants already know; planning an effective vocational and language program; and measuring the growth of English proficiency during participation in the program.[48]

7) A model for Awarding Academic Credit for Work/Life Experience. This model is constructed so that it can be used in and/or out of a traditional education system. The core of the model is a self conceptual evaluation center. In this self-conceptual center, input about the person is supplied initially by the student. The past life experiences of student/client are evaluated and award points are given toward work and credit for academic certification. Experiences are summarized in a portfolio which includes a resume that can be presented to a potential employer or for entrance to a training institute to gain additional skills. This portfolio can serve the past work/life experience of hard core unemployed adults. Use of this model is planned also in correctional institutions.

D) Teaching Staff

1) Guidance Counselors

In general, specially certified counselors are employed in educational institutions and have previously attained teacher certification and experience. The most common academic qualification for the counselor is the master's degree, typically obtained in the graduate counselor education program of a college or university. There is expanding emphasis on continuing in-service training, and on team efforts in the planning, delivery, and evaluation of guidance and counseling. The "guidance personnel team" includes counselors, selected teachers, paraprofessionals, and to a growing extent, representatives from other private and public organizations in the community.

Guidance personnel are the only professional group whose principal objective is to foster freedom and competency of educational and/or occupational choice. In doing so they draw upon the behavioral sciences for an understanding of the motives, interests and needs of their clients, utilize current occupational data and information sources, develop innovative communication techniques when needed, and attempt to assess the effectiveness of their efforts.[49]

2) Industry Personnel

Personnel from industry are used both on a part-time and a limited-term, full-time basis, especially for vocational training purposes and increasingly for guidance team purposes. Federal vocational education legislation encourages the exchange of personnel between education and industry.

Teachers with recent business and industrial experiences are most often employed in post-secondary institutions (community or junior colleges, vocational institutes). Certification requirements are often less stringent, initially, with full credit given for proven competency, as a practioner, in the specific occupational field.

Exchanges of personnel between schools and industry, while not common-place, are used to strengthen the skills of teachers and instructional relevance.

In many cases summer work experience is encouraged or required as part of the periodic certification renewal process. These experiences are often through a teacher education/cooperative education type class.

3) Teacher-coordinators

Vocational and technical teachers are involved in coordination and cooperation between schools and employers through local and state vocational education advisory councils, local specific vocational training program advisory committees, agreements with employers pertaining to cooperative vocational education training programs, and in given instances are members of local guidance teams.

The most active segment of school personnal in the school-business-industry mix are the teacher-coordinators of cooperative work experience and work-study programs. These professionals interact daily with employers as they supervise students placed on job experience sites; develop new or additional work stations; help students find permanent placement in jobs following school completion; and participate in joint council activities for planning, evaluation and accountability purposes.

V. Conclusions — the Present State of Affairs and Prospectives for the Future

The United States has made major achievements on the problems of transition from school to work, although drawbacks and difficulties still exist.

A. Equity and Access

Equal educational opportunity, including accessibility and equity is a critical issue in American education. Stratgies are in place which will affect every aspect of federally funded programs, from contracting procedures, to regulations, to funding. Already in evidence are shifts in formerly male, female-intensive occupational training programs. The access of women, for example, to formerly male-intensive occupations such as agriculture, the technical and trades and industrial occupations is on the increase. Likewise, enrollment of handicapped persons in vocational education courses has increased 146 percent over a ten-year period and that of disadvantaged persons by 132 percent.[50] Still vocational Education does not reach all the people it should. The disadvantaged, in particular, constitute a large population of "the hardest to reach, teach and place" to whom vocational education must reach out and serve. Other special populations who need to receive an adequate vocational education include: Native American Indians, Older Americans, Migrants, persons of limited English proficiency and Hispanics. Continuing efforts are made to serve these populations.

B. Career Education

As previously mentioned career education is a major education and work movement initiated by the federal government. It is a concept which encourages and supports the career development process in a systematic, sequential, and ordered fashion. The career education progression is outlined below in four phases:

Phases	Program	Age level
Career awareness	infused within regular and special education programs	generally early elementary schoo years (ages 5-9) but may be need ed by older students
Career orientation	infused within regular and special education programs	generally upper elementary schoo years (ages 10-12) but may be needed by older students
Career exploration	infused within regular, special, and prevocational programs	generally junior high/middle school years (ages 12-14) but may be needed by older students

Phases	Program	Age level
Career preparation	infused within regular, special, vocational, and CETA programs	generally high school, post-secondary, and adult years (ages 14-16 and older) [51]

Career education recognizes: 1) the cyclical nature of career development as the individual encounters new experiences and expands her/his options, 2) that preparation for work is life long and continous, and 3) the need students have for career information and the opportunity to explore many options through gradually less structured experiences. It has a strong emphasis on the removal of occupational sterotyping for women, minorities, and handicappped persons, and on expanding options and opportunities for disadvantaged and handicapped learners. [52]

Career education facilitates the transition from school to work through involvement of teachers, counselors and the community (i.e. collaboration with business, industry, labor, government, civic organizations, parents and students) in the career development process.

C. Experiential Education Programs

Experiential education programs play an important role in vocational education in the United States. These programs share common characteristics: a) interaction with and learning in the community, b) the inclusion of an instructional component, and c) the awarding of academic credit and/or wages. Cooperative education, Experienced Based Career Education (EBCE) and apprenticeship are highly successful experiential education programs. They provide the opportunity for students to acquire work-related skills in a real work environment and thus establish a base for better understanding of both self and the world of work. This foundation plays a significant role in the transition from school to work. [53]

1) Cooperative Education

The most effective mechanism in current practice which affects the school to work transition is cooperative vocational education. Priority for Federal funding of these programs is given to areas with high rates of school dropouts or youth unemployment.

Evaluations suggest that cooperative vocational education is highly motivating to students. For these students, benefits in addition to earnings include: an opportunity for testing career goals in a meaningful way; facilitating a path to the unfamilar world of work; fulfilling personal needs and aspirations; developing attitudes and skills essential to satisfactory working relationships; and establishing a current employment record. For the employing community, particpants in cooperative education programs are attractive because they are a source of motivated employees who can be trained inexpensively and can be observed prior to full-time employment. [54]

For many communities, cooperative vocational education is a practical way to keep qualified young people in the community. The need to purchase expensive specialized equipment and laboratory facilities in the schools can be reduced since students receive some of their training using the employer's equipment. Schools can often teach more students in a given facility by carefully scheduling work and school periods. Moreover, immediate application of learning in realistic settings contributes to the instructional process. [55]

Despite its relative success, some deficiencies have been identified in cooperative education:

- lack of sufficient competent personnel for supervision of the work experience;
- difficulty in finding suitable work places for students;
- inadequate coordination between education and employment; [56]

During the 1978 school year, 29 States reported the estimated earned wages of cooperative vocational education students, based on the minimum wage of $2.65 an hour, was $689,423,364. The estimated total earned wages of cooperative vocational education students in the 57 states and territories was over $1.3 billion. State and Federal income and FICA taxes are deducted from their earnings. The total taxes paid by these students is estimated at more than $100 million. Federal expenditures for this program are estimated at less than $75 million. [57]

2) Experienced Based Career Education (EBCE)

This Federal initiative brings students of the public education system directly into the marketplace and, in turn, the expertise of private firms to the schools by infusing work concepts and habits into the regular school curricula. The academic credit granted to the student for experience gained in the work place requires extensive cooperation among teachers, guidance counselors, and supervisors at the work site. EBCE programs tend to be offered primarily to students in the last two grades of secondary school, 11th and 12th grades [58]

Students involved in prototype EBCE programs spend approximately eight to thirty hours weekly at the school conferring individually with the coordinator, attending workshops with other EBCE enrollees, and using facilities such as the library. The remainder of the week is spent in the community completing projects and interacting with adults. The emphasis there is on academic and personal productivity, not economic productivity. A few districts have modified the model to meet local needs, such that participants may spend two to three hours daily in EBCE and the remainder of the day in the regular programs. [59]

The student-centered curriculum scheme brings the content from the different disciplines into an intergrated lesson-laboratory-experience method which tunes to individual student learning differences and depends on the demonstration of competence as the base for determining success and achievement. [60]

This portends a movement away from the strictly graded system, toward an achievement and work-oriented useful living skills model for learning. Emphasis is also placed on building a work resume, which provides the prospective employer a useful reference for real work skills learned in cooperative work experience or work study experiences. Experienced based career education is putting education in the market place, greatly strengthening the tie between education and the labor market and provides students with relevant job market information, work experience, career planning, and academic credit. Experienced-based career education programs are now widespread throughout the United States. Three years ago during the pilot demonstration phase several hundred students were involved in EBCE programs. Today more than 200,000 persons are educated and trained through this new method which has also involved 22,000 employees of firms. In 1979-80 an estimated 18,000 students are enrolled in EBCE programs in 200 schools across the country. [61]

3) Apprenticeship

Apprenticeship, is training in industrial occupations involving planned day-by-day, on-the-job training and experience under proper supervision, combined with technical studies in subjects related to the trade. [62]

As practiced by modern industry, apprenticeship is a businesslike system in which the young worker entering industry is prepared for a craft or trade through instruction and experience, both on and off the job, in all the practical and theoretical aspects of the work required in a skilled occupation. [63]

As apprentices progress in training, they mature, acquire additional skills, and master the application of those skills already learned. Through rotation from one division of work to another and instruction in technical subjects related to the trade, they develop independence of judgement. This enables them to be productive during their entire period of training. [64]

Most apprenticeship terms range from 1 to 5 years, depending upon the particular trade involved. To master a particular trade requires: (1) Learning all or most of the skills of trade; (2) perfecting the use of each specific skill; (3) bringing each skill up to the speed and accuracy required of the jpb; and (4) learning to use special skills in combination with other skills. [65]

During 1978, an estimated 390,000 apprentices were in training in apprenticeship programs registered by the Bureau of Apprenticeship and Training in the Department of Labor. Many of these apprentices receive related instruction from vocational education programs.

As reported in UNESCO's study paper "International Symposium on Problems of Transition from Technical and Vocational Schools to Work," job orientation in apprenticeship programs in the United States, too, generally result in an over-emphasis on practical work as compared with basic education and theory. General education and theoretical training outside the normal production process are thus frequently neglected. There is often little coordination between vocational instructors and the work experience supervisor. [66]

D. Advisory Councils

Advisory councils for education and training programs have been established throughout the United States and serve in a variety of capacities. Memberships on these councils are often exchanged between education, industry and labor and represent key linkage persons for the school to work transition.

1) Vocational Education Advisory Councils

The concept of advisory councils (briefly mentioned before) is well integrated in education in the United States. States are required under the federal legislation to establish a State Advisory Council on Vocational Education (SACVE) to increase citizen participation in the vocational education planning and decision-making process. Membership requirements include representatives from business, labor, industry, the general public minority interests, students, professional organizations, homemakers, and retired individuals. [67]

The Education Amendments of 1976 also required creation of local advisory councils to assist local education agencies and other eligible recipients in planning and administering local programs. During FY 1978, 11,871 local advisory councils were in operation. Each was composed of representatives of the general public, including at least one representative of business, industry, and labor. Local advisory councils were established for programs areas, schools, the community, and the region in which the vocational program was located. [68]

2) Work Education Councils

Work education councils (WEC's) fostered under Department of Labor programs exist in fifty or more cities and communities in the United States. Among their several purposes is assisting students in transition from school to work. They help identify and provide work experience sites, assist in job development programs and often are the source for initial creation of new job opportunities in their respective communities.

3) Industry-Labor-Education (IEL) Councils

IEL Councils (as previously discussed) were designed for the purpose of providing a system for meaningful collaboration among industry, business, labor and education.

4) Private Industry Councils (PIC's)

Each CETA prime sponsor is required to establish a Private Industry Council (PIC). Functions of the PIC are determined by the prime sponsor and the PIC and are based upon local conditions, the interests of the private sector, and the needs of the community. The main functions are to increase the involvement in training programs of the business community, including small business, minority business enterprises, and labor organizations in employment and training activities and to expand private sector employment opportunities for economically disadvantaged persons.

E. Education-Labor Connection

The education and labor "connection", is receiving intense scrutiny in the United States. Unacceptably high levels of youth unemployment, alone, call for this major emphasis. Factors bearing on youth unemployment and the transition from school to work -- discrimination, attitudes and motivation, competence and readiness to enter the labor market, wage levels, degree of labor market information -- call on uniquely new working partnerships of education and labor which must evolve from: communication; to cooperation and, finally to collaboration. [69]

Convergence in goals and populations served by the Vocational Education Act (VEA) and the Comprehensive Employment and Training Act (CETA) resulted in a clear legislative mandate for coordination. The mandate for coordination applies to all levels of government (Federal, State, and local) and cuts across several functions (planning, program administration, and research and demonstration). [70]

A major nationwide study funded by the U.S. Office of Education was made to examine effective mechanisms for facilitating coordination between vocational education and eligible CETA prime sponsors. The study was to build upon existing vocational education coordination efforts under CETA by identifying, documenting and disseminating exemplary mechanisms for coordination. Several of these coordination efforts have been discussed previously. [71]

F. Summary

While vocational education has contributed substantially to solving the problems of transition from school to work, much more needs to be done. Access must be improved. A shortage of good vocational education facilities in urban and isolated rural areas hinders the efficiency and effectiveness of serving those people who most need and want a vocational education. More emphasis is needed on personnel development in vocational education, focusing, for example, on using new and alternative techniques of teaching, upgrading occupational skills, and learning to deal with handicapped, disadvantaged and limited English speaking persons. Guidance and counseling efforts need to be better integrated into the school system and the curriculum. Counselors should have smaller caseloads and the support of other school personnel. Better and more reliable information on job possibilities, work experience and employment options are necessary to facilitate people in the transition from school to work.

But the future is hopeful if not bright. A major recent effort to aide in the resolution of the youth unemployment problem in the United States is embodied in the President's Youth Initiative and the resulting Youth Act of 1980. This proposed legislation, currently being studied by the U.S. Congress, would impact on extremely poor school districts with high concentrations of unemployed youths. This Bill is a joint Department of Education and Department of Labor effort. It calls for increased emphasis on integration of basic skills (i.e. reading and mathematics) and work experience. Emphasis would also be placed on employment needs, in-service training plans, career information and counseling, work placement, cooperation among the school, private sector and local Comprehensive Employment and Training Act (CETA) prime sponsors, and the building of individual student work resumes.

The transition from school to work issue is one of the most underdeveloped issues currently in question. The United States Secretary of Education has placed the highest priority on serving the disadvantaged youth of the country with special emphasis on youth employment. The Secretary expects the problems of transition from school to work to be placed at the top of the list of related issues to be resolved.

Resolutions are most likely to be found where:

a) students, parents, teachers and counselors have better information about jobs and the world of work;

b) cooperative work experience programs are improved, and expanded to serve at least 50 percent of all students enrolled in school-based vocational education programs;

c) career exploration in the work place is made available for all students;

d) education programs are delivered in or close to the industrial or business site and cease to be restricted to the school site alone; and

e) greater involvement of business, industrial and labor persons in the schooling process leads to better connections between schools and the work place and the creation of new jobs.

There are surely other conditions, variables and actions which can improve the process, for each individual, in making the transition from the school house to the work place. It is clear that the investment in research and demonstration efforts must be increased in this area. Likewise, already known and proven successful practices must be disseminated and replicated in new locations.

The international exchange on this topic, through the present symposium, will contribute significantly to the broadening of our individual and collective knowledge, and to accelerating the process of finding new answers to this old and persistent problem.

FOOTNOTES

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